Appl. No. 10/581,376 Filing date: January 31, 2007

Reply to Office Action of July 19, 2010

Att. Docket No.: 7492-104

Applicant Name: Christopher Martin Bunce
Examiner: A.J. Kosar
Art Unit: 1651

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

- 1. (currently amended) A method of maintaining undifferentiated biological cells in culture *in vitro* comprising culturing the cells in the presence of NM23 protein, without any cytokines other than cytokines IL-3 and/or SCF, wherein the NM23 acts to inhibit differentiation and maturation of said cultured cells, and wherein the cultured cells are stem cells.
- 2. (previously presented) The method of claim 1, wherein the NM23 protein acts as a survival factor for said cultured cells.
  - 3. (canceled)
  - 4. (canceled)
- 5. (previously presented) The method of claim 1, wherein the cultured cells are for therapeutic use.
- 6. (previously presented) The method of claim 1, wherein the cultured cells are for non therapeutic use.
- 7. (previously presented) The method of claim 1, wherein the cultured cells are selected from the group consisting of mesenchymal cells, haematopoietic cells, cells of the central nervous system (CNS) and epidermal cells.
- 8. (previously presented) The method of claim 1, wherein the cells are collected from the blood or bone marrow.
- 9. (withdrawn) A method of preparing a biological cell for therapeutic use, the method comprising the consecutive or concurrent steps of:
  - i) culturing the biological cell in the presence of NM23 protein; and
  - ii) adapting the biological cell for therapeutic use.

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10. (withdrawn) A method of therapy, the method comprising the consecutive or concurrent steps of:

- i) obtaining a biological cell;
- ii) culturing the biological cell in the presence of NM23 protein; and
- iii) adapting the biological cell for therapeutic use and further comprising administering the adapted biological cell to a subject in need of such therapy.
- 11. (withdrawn) The method of claim 9 or claim 10, wherein the biological cell is a stem cell.
- 12. (withdrawn) The method of claim 9 or claim 10, wherein the biological cells is a progenitor cell.
- 13. (withdrawn) The method of claim 9 or 10, wherein the adaptation for therapeutic use comprises ex vivo expansion of biological cell numbers.
- 14. (withdrawn) The method of claim 9 or 10, wherein the biological cell is selected from the group comprising mesenchymal cells, haematopoietic cells, cells of the central nervous system (CNS) and epidermal cells.
- 15. (withdrawn) The method of claim 9 or 10, wherein the cells are collected from the blood or bone marrow.
- 16. (withdrawn) The method of claim 9 or 10, wherein the adaptation for therapeutic use is an adaptation for use in gene therapy.
- 17. (withdrawn) The method of claim 9 or 10, wherein the adaptation for therapeutic use is an adaptation for use in stem cell therapy.
- 18. (withdrawn) The method of claim 9 or 10, wherein the adaptation for therapeutic use is an adaptation for use in immunotherapy.
- 19. (withdrawn) The method of claim 9 or 10, wherein the adaptation for therapeutic use comprises ex vivo expansion of biological cell numbers.
  - 20. (withdrawn) The method of claim 9 or 10, wherein the biological cell is selected

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from the group comprising mesenchymal cells, haematopoietic cells, cells of the central nervous system (CNS) and epidermal cells.

- 21. (withdrawn) The method of claim 9 or 10, wherein the cells are collected from the blood or bone marrow.
- 22. (withdrawn) A cell culture medium for the promotion of cell survival in culture without differentiation, the medium being supplemented with NM23 protein.
- 23. (withdrawn) A culture medium according to claim 22, wherein the cells to be cultured are selected from the group comprising mesenchymal cells, haematopoietic cells, cells of the central nervous system (CNS) and epidermal cells.
- 24. (withdrawn) A culture medium according to claim 22, wherein the cells to be cultured are collected from the blood or bone marrow.
- 25. (withdrawn) A culture medium according to claim 22, wherein the medium comprises RPMI 1640 medium.
- 26. (withdrawn) A culture medium according to claim 22, wherein the medium comprises DMEM medium.